

WHAT IS CLAIMED IS:

1. An isolated polypeptide, comprising an intracellular estradiol binding protein (IEBP).
2. The isolated polypeptide of claim 1, comprising a biologically active IEBP polypeptide that further comprises substantially the same amino acid sequence as set forth in SEQ ID NO:1.
3. The isolated polypeptide of claim 1, comprising the amino acid sequence set forth in SEQ ID NO:1.
4. A composition comprising:  
an isolated polypeptide, comprising an intracellular estradiol binding protein (IEBP); and a carrier.
5. The composition of claim 4, wherein said isolated polypeptide further comprises a biologically active IEBP polypeptide that further comprises substantially the same amino acid sequence as set forth in SEQ ID NO:1.
6. The composition of claim 4, wherein said isolated polypeptide further comprises the amino acid sequence set forth in SEQ ID NO:1.
7. The composition of claim 4, wherein said carrier is selected from the group consisting of phosphate buffered saline (PBS) solution, water, emulsions, and wetting agents.
8. An isolated nucleic acid encoding an intracellular estradiol binding protein (IEBP), selected from the group consisting of:  
(a) DNA encoding the amino acid sequence set forth in SEQ ID NO:1,

- (b) DNA that hybridizes to the DNA of (a) under moderately stringent conditions, wherein said DNA encodes biologically active IEBP,
- (c) DNA degenerate with respect to either (a) or (b), wherein said DNA encodes biologically active IEBP, and
- (d) DNA fully complementary to any of (a), (b) or (c).

- 9. The isolated nucleic acid of claim 8, wherein said isolated nucleic acid is selected from the group consisting of genomic DNA and cDNA.
- 10. The isolated nucleic acid of claim 8, comprising a nucleic acid that further comprises substantially the same nucleic acid sequence as set forth in SEQ ID NO:2.
- 11. The isolated nucleic acid of claim 8, comprising a nucleic acid that further comprises substantially the same nucleic acid sequence as set forth in SEQ ID NO:3.
- 12. A vector comprising the polynucleotide of claim 8.
- 13. A host cell carrying the vector of claim 12.
- 14. A recombinant host cell carrying the isolated nucleic acid of claim 8.
- 15. The recombinant host cell of claim 14, wherein said host cell is selected from the group consisting of a B95-8 cell, a 6299 breast cell, and an *E. coli* cell.
- 16. The recombinant host cell of claim 14, wherein said host cell overexpresses IEBP.
- 17. A composition, comprising the host cell of claim 14, and a carrier.

18. The composition of claim 17, wherein said carrier is selected from the group consisting of phosphate buffered saline (PBS) solution, water, emulsions, and wetting agents.